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Attorney Docket No.: 42P12564

Amendments to the Claims

1. (currently amended) A system for simulating machine instructions on a host machine comprising:

a monitor that translates the machine instructions into translated code, the monitor modifying original values in a descriptor table to prevent the translated code from being accessed, thereby preventing the translated code from being modified and ~~prevents the translated code from being modified;~~

a virtual machine that executes the translated code stored in memory; and

a kernel that detects exceptions occurring in the virtual machine and transfers control between the virtual machine and the monitor according to a type of the exceptions,

wherein an operating system executing on the host machine also supports a full platform simulator that includes device models.

2. (canceled)

3. (original) The system of claim 1 wherein the translated code and the original machine instructions access the memory using the same addresses.

4. (original) The system of claim 1 wherein the monitor further includes an auxiliary simulator that executes the machine instructions.

5. (original) The system of claim 1 wherein the monitor replaces one of the machine instructions with a capsule if the machine instruction accesses a system state of a central processing unit of the host machine.

6. (canceled)

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7. (currently amended) The system of claim 6 wherein the monitor modifies the descriptor table to remove a portion of ~~[[the]]~~ a segment that overlaps with the memory storing the translated code.

8. (currently amended) The system of claim 6 wherein the monitor modifies the descriptor table to replace ~~[[the]]~~ a segment with a substitute segment, which, when accessed, causes an exception to be generated.

9. (currently amended) A method of simulating machine instructions on a host machine comprising:

translating the machine instructions into translated code;

storing the translated code in memory;

executing the translated code;

preventing the translated code from being modified;

detecting exceptions in the execution of the translated code; and

transferring control to an appropriate simulation module on the host machine

according to a type of the exceptions,

wherein an operating system executing on the host machine also supports a full platform simulator that includes simulation modules and device models.

10. (original) The method of claim 9 further comprising simulating a device.

11. (currently amended) The method of claim 9 further comprising accessing memory by the translated code using ~~[[the]]~~ a same set of ~~[[same]]~~ addresses as ~~[[the]]~~ a set of addresses used by the original machine instructions.

12. (original) The method of claim 9 further comprising replacing one of the machine instructions with a capsule if the machine instruction accesses a system state of a central processing unit of the host machine.

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13. (original) The method of claim 9 further comprising modifying a descriptor table to prevent the translated code from being modified, the descriptor table including attributes of a segment of the memory.

14. (currently amended) The method of claim 13 further comprising modifying the descriptor table to remove a portion of ~~[[the]]~~ a segment that overlaps with the memory storing the translated code.

15. (original) The method of claim 13 further comprising modifying the descriptor table to replace the segment with a substitute segment, which, when accessed, causes an exception to be generated.

16. (currently amended) A computer program product residing on a ~~computer~~ machine readable medium comprising instructions for causing a host machine ~~the computer~~ to:

- translate ~~[[the]]~~ a set of machine instructions into translated code;
- store the translated code in memory;
- execute the translated code;
- prevent the translated code from being modified;
- detect exceptions in the execution of the translated code; and
- transfer control to an appropriate simulation module on the host machine

according to a type of the exceptions,

wherein an operating system executing on the host machine also supports a full platform simulator that includes device models.

17. (currently amended) The computer program product of claim 16 further comprising instructions for causing the ~~computer~~ host machine to simulate a device.

18. (currently amended) The computer program product of claim 16 further comprising instructions for causing the ~~computer~~ host machine to access memory by the

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translated code using ~~[[the]]~~ a same set of ~~[[same]]~~ addresses as ~~[[the]]~~ a set of addresses used by the original machine instructions.

19. (currently amended) The computer program product of claim 16 further comprising instructions for causing the ~~computer~~ host machine to replace one of the machine instructions with a capsule if the machine instruction accesses a system state of a central processing unit of the host machine.

20. (currently amended) The computer program product of claim 16 further comprising instructions for causing the ~~computer~~ host machine to modify a descriptor table to prevent the translated code from being modified, the descriptor table including attributes of a segment of the memory.

21. (currently amended) The computer program product of claim 20 further comprising instructions for causing the ~~computer~~ host machine to modify the descriptor table to remove a portion of ~~[[the]]~~ a segment that overlaps with the memory storing the translated code.

22. (currently amended) The computer program product of claim 20 further comprising instructions for causing the ~~computer~~ host machine to modify the descriptor table to replace ~~[[the]]~~ a segment with a substitute segment, which, when accessed, causes an exception to be generated.